

**Remarks:**

Claims 1, 2, 17-19, and 22 were pending in the last Office Action. Applicant has canceled claims 2-16 and 18-21 without prejudice or disclaimer, amended claims 1, 17, and 22, and added claims 23-33. Thus, claims 1, 17, and 22-33 are currently pending, with claims 1, 17, 22, and 23 being independent.

Applicant submits amended Figure 2, in which reference numeral (50) to the linkage has been moved to clearly indicate the structure comprising the linkage, including the boot cap (68) to the immediate right of the control handle (48). Applicant notes that this amendment does not present new matter, as the specification clearly states that the linkage (50) is comprised of the boot cap (68), a top cap (64), and other elements that are part of the accordion-styled bellows embodied in the boot cap (68). Applicant further notes Figure 3, in which reference numeral (50) clearly point to the "bellows." A Replacement Sheet for Figure 2 and an Annotated Sheet showing changes made accompanies this Amendment.

In the last Office Action, the Examiner rejected claim 1 under 35 U.S.C. § 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner stated that because only the isolation mechanism is being claimed, any reference to the linkage being external to the boom renders the claim indefinite. Applicant submits that amended independent claim 1 should overcome the Examiner's rejection, as the claim now recites the linkage is configured for positioning external to the boom, and that when so positioned, the dielectric gap is produced. Therefore, the boom is not part of the claimed combination, except to the extent that the linkage's position with respect to the boom is a limitation of the claim. Applicant has deleted the recitation of "the structural combination," and therefore, removal of the Examiner's further rejection of claim 1 as lacking an antecedent basis is respectfully requested.

The Examiner similarly rejected independent claim 22 under 35 U.S.C. § 112, ¶ 2 as being indefinite. Applicant has amended claim 22 to recite that the dielectric gap is produced when the isolation mechanism is coupled with the boom. Applicant respectfully submits that the boom and

isolation mechanism are therefore not claimed in combination. Instead, Applicant claims an isolation mechanism, such that when the mechanism is coupled with the boom, the dielectric gap exists. In view of this amendment, Applicant respectfully requests removal of this rejection.

The Examiner continues to reject the claims as anticipated by Prescott and obvious in view of Balogh, Gilmore, or Prescott and either Luscombe or Bauer. Applicant has amended independent claims 1 and 17 to recite additional structural features, as discussed below. With respect to independent claim 1, Applicant again contends that the Examiner's refusal to give patentable consideration of the functional limitation that the linkage produces a dielectric gap is unsupportable and in violation of clear legal and administrative precedent. MPEP § 2173.05(g) makes it clear that functional limitations must be evaluated and considered like any other limitation of a claim. Federal Circuit case law is equally clear on this point. Despite this, the Examiner refuses to acknowledge Applicant's arguments or cite any contradicting evidence or law. Applicant therefore once again requests the Examiner give proper review and consideration of the functional limitations or provide a cite to the MPEP or any other legal authority that supports the Examiner's position.

Applicant notes that the Examiner appeared to comment on the functional limitations of the claims contained in the parent application, Serial No. 10/103,433. Although the Examiner's comments in the parent application are not of record in the present application, Applicant believes that a short reply to such comments may aid the further prosecution of the present application. In particular, at page 3 of the April 14, 2005, Office Action, the Examiner stated that if Prescott's "linkages" (36,38) are external to the boom, then the "linkages" are "'substantially' non-conductive." Applicant respectfully submits that there is no support in Prescott for the Examiner's assertion. As the Examiner may be aware, just because the linkage is made of a non-conductive material does not also mean that the other surrounding structure is also non-conductive. In fact, the majority of structure surrounding the linkage is likely conductive. (See, e.g., Prescott's mechanism (74) and bell cranks (76), which are not disclosed as non-conductive, although Prescott clearly states when disclosed items are non-conductive). The surrounding conductive structure is then sufficient to create a path for phase-to-phase electrocution. Therefore, just because the members (36,38) are non-

conductive does not mean that the linkages create a dielectric gap between the control handle and the boom, as presently claimed in independent claim 1.

In the Examiner's response to Applicant's arguments, the Examiner stated that "Applicant's arguments with respect [to] applicant's disclosed invention but not the claimed invention e.g. the position of the control apparatus etc. are not persuasive as it is the claimed invention that is rejected and not the disclosure." Applicant understands the Examiner's statement to be with respect to the section 112 rejection, and therefore, the amendments to the claims discussed *supra* should address the Examiner's concerns. In other words, the control valves are a limitation on the claim to the extent that the isolation mechanism is configured for positioning proximate to the control valve assembly. Although the control valves are not part of the claimed combination, the isolation mechanism's position with respect to the control valves is a proper limitation of the claim. If the Examiner disagrees, and if an amendment to the claim would address the Examiner's concerns, the Examiner is invited to contact the Applicant's representative.

Applicant's arguments with respect to the Prescott reference and the fact that it does not disclose linkage have been extensively repeated, and Applicant again submits these arguments in the present Amendment. (See April 7, 2005, Amendment, pages 5-7; June 29, 2004, Amendment, pages 6-8). Furthermore, Applicant has addressed the Gilmore reference and the fact that the metallic cable assembly (50) is conductive. (See April 7, 2005, Amendment, page 8). Applicant presumes the Examiner, in rejecting the claims in view of Gilmore, asserts that the cable assembly (50) is equivalent to the claimed non-conductive linkage. The Examiner, however, has never officially stated such, nor has the Examiner responded to Applicant's arguments in the last Amendment addressing the Gilmore reference. The only comments the Examiner has ever made regarding the Gilmore reference is in the October 7, 2004, Office Action, wherein the Examiner stated that "[b]oth Gilmore and Prescott show[] the claimed apparatus with the exception of the control handle . . . ." Therefore, in view of the clear disclosure in Gilmore of a conductive cable assembly, Applicant submits that Gilmore does not teach or suggest any or all of the claimed features.

The Examiner newly cites Balogh as teaching the claimed mechanism except for the non-conductive handle. The Examiner states that Balogh discloses electrically non-conductive linkage 68. Applicant submits that the amendments to the claims should overcome the rejections in view of Balogh. The "linkage" disclosed in Balogh is optic fibers (68) that transmit light to produce electrical current. As such, the optic fibers do not meet the dictionary meaning of "linkage," which is defined as "[a] system of interconnected machine elements, such as rods, springs, and pivots, used to transmit power or motion." (See [www.dictionary.com](http://www.dictionary.com)). Notwithstanding this definition, Applicant has amended claim 1 to recite a rod assembly, which Balogh certainly does not have. Additionally, dependent claims 24-33 all recite structure relating to the linkage and including items such as an elongated link and an elongated pivoting frame. Balogh also does not teach or suggest any such structure.

Applicant has amended independent claim 17 to recite that a length of the linkage is approximately greater than a length of the control handle. Similarly, new, independent claim 23 recites that a combined length of the linkage and an actuating assembly is approximately greater than a length of the control handle. Further, applicant has added new, dependent claims 24-33, which recite the linkage further comprising at least one elongated link (70) constructed of a non-conductive material (see page 8, line 25 and Fig. 4) and at least one elongated pivoting frame (66) also constructed of a non-conductive material (see page 8, line 24 and Fig. 4).

With respect to claim 17, Applicant submits that the claim now recites a relative relationship between the length of the control handle and the length of the linkage, as clearly illustrated in Figure 2. Applicant further submits that Figure 2 provides the necessary support under § 112, ¶ 1 for the claimed feature, as a length of the linkage is clearly approximately greater than a length of the control handle. Further yet, Applicant submits that the length of the control handle (48) is intended to be the left-to-right or horizontal length when viewing Figure 2, whereas the length of the linkage is intended to be the up-to-down or vertical length when viewing Figure 2.

Applicant further notes that the Federal Circuit has clearly stated that support for a claimed feature may come from the drawings. *Vas-Cath Incorporated v. Mahurkar*, 935 F.2d 1555, 1565-67

(Fed. Cir. 1991). The Court in *Vas-Cath* cited *In re Wolfen-Sperger*, 302 F.2d 950, 955-57 (CCPA 1962) and *In re Heinle*, 342 F.2d 1001 (CCPA 1965) as support for its holding that “under proper circumstances, drawings alone may provide a ‘written description’ of an invention as required by § 112.” It was explained by the Federal Circuit in *In re Hunter*, 59 F.3d 181, 183 (Fed. Cir. 1995) that the written description may be satisfied by various parts of the disclosure, including the drawings, tables, equations, and formulas, alone or in combination. Drawings alone constitute an adequate description if they describe what is claimed and convey to those skilled in the art that the patentee actually invented what is claimed. *Vas-Cath*, 935 F.2d at 1566.

The Court in *Vas-Cath* said the issue in *In re Wolfen-Sperger*, was whether the application drawings supported a claim limitation that read: “having, in untensioned condition, a mean diameter corresponding approximately to the mean diameter of said chamber and a radial width smaller than the radial width of said chamber . . . .” *Id.* 302 F.d at 952.

The board’s statement that “drawings alone cannot form the basis of a valid claim” is too broad a generalization to be valid and is, furthermore, contrary to well-settled and long-established Patent Office practice . . . . Consider, for one thing, that the sole disclosure in a design patent application is by means of a drawing . . . . For another thing, consider that the only informative and significant disclosure in many electrical and chemical patents is by means of circuit diagrams or graphic formulae, constituting “drawings” in the case . . . .

. . . The practical, legitimate enquiry in each case of this kind is what the drawing in fact discloses to one skilled in the art . . . .

. . . The issue here is whether there is supporting “disclosure” and it does not seem, under established procedure of long standing, approved by this court, to be of any legal significance whether the disclosure is found in the specification or in the drawings so long as it is there.

*Id.* 302 F.2d at 955-56.

*In re Heinle* concerned a new matter rejection where the CCPA reversed a U.S. PTO rejection of the application’s claims to a “toilet paper core” as “including subject matter having no

clear basis in the specification as filed.” *Heinle*, 342 F.2d at 1003. The claim limitation, which the examiner said was without support, required the width of apertures in the core to be “approximately one-fourth of the circumference of said core.” *Heinle*, 342 F.2d at 1007. Based upon a review of the application drawings relied upon for support, the CCPA said:

it seems to us that [the drawings] conform to the one-fourth circumference limitation almost exactly. But the claim requires only an approximation. Since we believe an amendment to the specification to state that one-fourth of the circumference is the aperture width would not violate the rule against “new matter,” we feel that supporting disclosure exists. The rejection is therefore in error.

*Id.* 342 F.2d at 1007.

The CCPA in *In re Heinle* reasoned that because the drawings and specifications may be amended to conform to each other and that amending the description to conform to the drawings is not new matter, relying upon drawings for claimed relationship of parts would not violate the rule against “new matter.” Accordingly, the court in *In re Heinle* found that the supporting disclosure for the claimed relationship of the parts was found in the drawings, even though the relationship was not explicitly set forth in the description. *Heinle*, 342 F.2d at 1007.

The Federal Circuit, citing *Vas-Cath* in *Cooper Cameron Corp. v. Kvaerner Oilfield Products, Inc.*, 291 F.3d 1317, 1322 (Fed. Cir. 2002), said that “drawings constitute an adequate description if they describe what is claimed and conveyed to those skilled in the art that the patentee actually invented what is claimed . . . .” As in *Vas-Cath*, the invention claimed in *Cooper* was the invention shown in the drawing. *Cooper*, 291 F.3d at 322.

The attitude of the Board of Appeals on this issue was set forth in footnote 3 of a relatively recent decision, *Ex Parte Lejambre, et al.*, 2002 WL 1801305, wherein the Board, citing cases including *Vas-Cath*, stated that “while of course drawings are not drawn to scale, they may nevertheless be used to establish relationships or proportions between the various components which are clearly depicted therein.”

Accordingly, there is ample legal support for the use of the disclosure of the drawings in this application for the claiming of the relative proportions of the length of the control handle to the length of the linkage (for claim 17) and the combined length of the linkage and actuating assembly (for claim 23). In particular, the specification could be amended to include such relative proportions without constituting insertion of impermissible new matter.

Applicant further notes that the actuating assembly recited in new, independent claim 23 is also matter that was disclosed in the original drawings. A review of Figure 4, and in particular the generally rectangular base that is not designated by a reference numeral and is illustrated at the bottom of Figure 4, clearly conveys to one with ordinary skill in the art that the Applicant of the present invention disclosed an actuating assembly for purposes of translating the input from the control handle to the control valves. Also, as discussed at page 8, lines 1-9 of the specification, such transmission of the control input was known by the Applicant at the time of the invention. In particular, "[t]he linkage 50 couples the control handle 48 with the control valves 40 and operates to transmit the control input therebetween for implementation." The base illustrated in Figure 4 shows a pair of vertical walls or shoulders in which are set horizontal bars. These bars receive generally horizontal pivot rods (not shown) that are connected to the links 70. Movement of the handle translates into movement of the links and pivot rods so as to actuate the movement of the boom assembly via the control valves. Therefore, in view of the disclosure in Figure 4 and the cited specification, and the knowledge of one with ordinary skill in the art that an actuating assembly is necessary for translation of the control input from the handle and to the control valves, Applicant submits that an actuating assembly is clearly disclosed by the present application.

The remaining claims not discussed depend, directly or indirectly, on the discussed independent claims and therefore, should be in a condition for allowance.

In view of the amended claims and remarks herein, applicant respectfully submits that claims 1, 17, and 22-33 are now in allowable condition and requests a Notice of Allowance. In the event of further questions, the Examiner is urged to call the undersigned. Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 19-0522.

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Respectfully submitted,

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ANNOTATED DRAWING

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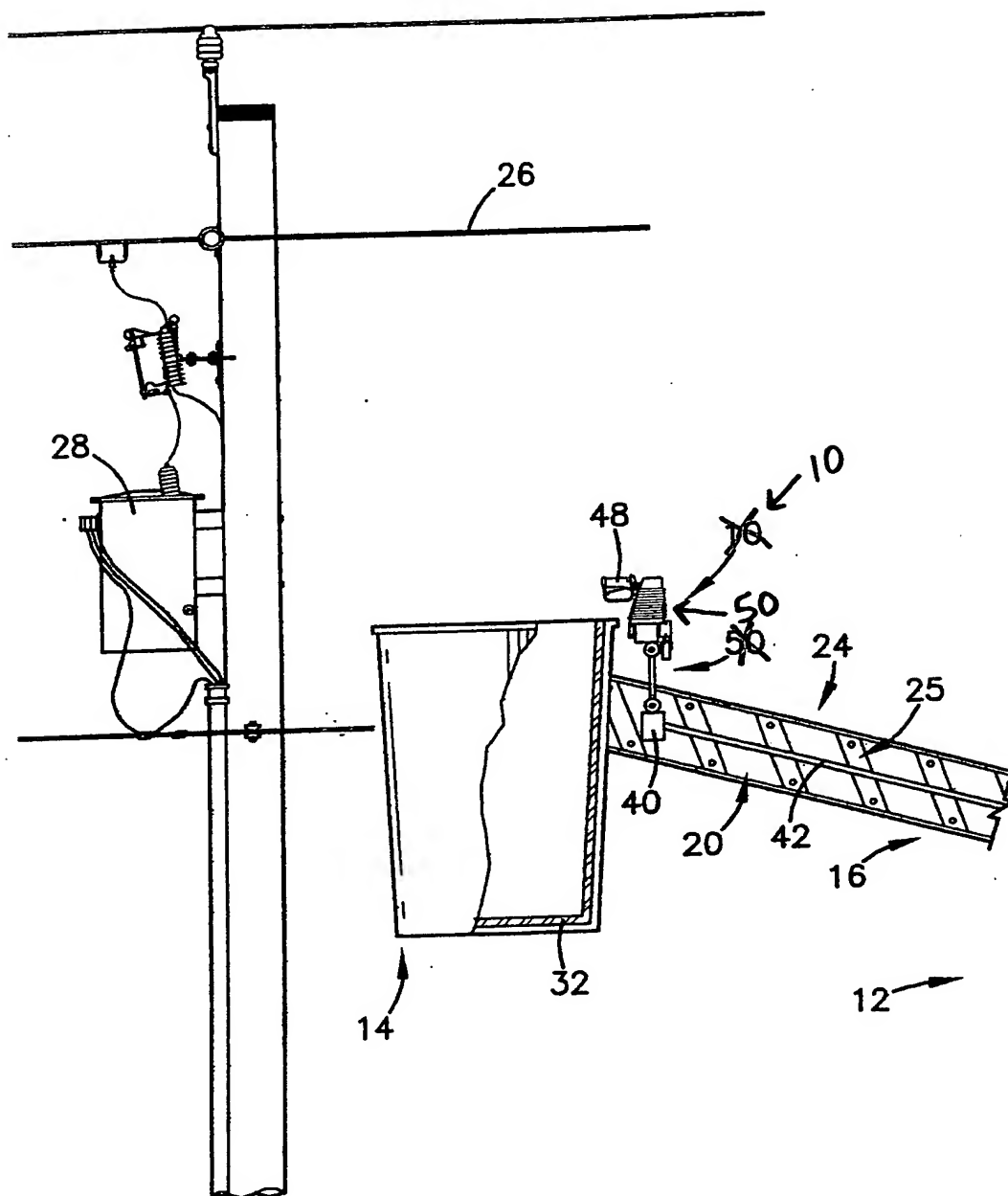


FIG. 2